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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,483	01/04/2001	Shigefumi Odaohhara	JP919990215US1	3573

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EXAMINER

CHANG, ERIC

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 02/25/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,483

Applicant(s)

ODAOHHARA, SHIGEFUMI

Examiner

Eric Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-10 are pending.

Priority

2. Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in Japan on January 5, 2000. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,651,178 to Voegeli et al.

5. As to claim 1, Voegeli discloses a power supply unit comprising:

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[a] a plurality of power supply circuit having different power conversion efficiency characteristics [col. 4, lines 53-63, and col. 6, lines 12-17];

[b] an input logic for inputting a control signal for controlling power consumption states [col. 6, lines 19-47]; and

[c] a switch for switching to one of said plurality of power supply circuits based on said control signal [col. 1, lines 56-67, and col. 2, lines 1-7].

Voegeli teaches a system with a plurality of power supply circuits with different power supply characteristics. The power supply circuits are programmed, enabled and disabled by a power controller circuit, depending on the requirements of the system. By using a control signal, such as a control voltage or a digital input, to enable and disable a plurality of power supply circuits, the power supply controller is able to switch between said power supply circuits, substantially as claimed.

6. As to claims 2 and 8, Voegeli discloses the switch activates a power supply circuit based on the state of said control signal [col. 4, lines 53-63, and col. 6, lines 19-47]. Voegeli teaches a power enable signal that controls whether a power supply circuit is activated or not.

7. As to claims 3 and 9, Voegeli discloses said plurality of power supply circuits comprises a first power supply circuit for accommodating a lesser electrical load and a second power supply circuit for accommodating a greater electrical load [col. 6, lines 12-17], and said power supply circuits are controlled by a control signal [col. 1, lines 56-67, and col. 2, lines 1-7].

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8. As to claims 6 and 7, Voegeli discloses a power supply unit comprising:

[a] a plurality of power supply circuit having different power conversion efficiency characteristics [col. 4, lines 53-63, and col. 6, lines 12-17];

[b] a detector for sensing the amount of power consumption [col. 2, lines 50-67, and col. 3, lines 1-5]; and

[c] a switch for switching to one of said plurality of power supply circuits based on said amount of power consumption [col. 1, lines 56-67, and col. 2, lines 1-7].

Voegeli teaches a system with a plurality of power supply circuits with different power supply characteristics. The power supply circuits are programmed, enabled and disabled by a power controller circuit, depending on the requirements of the system. The requirements of the system are detected by the power controller circuit, which detects the amount of power consumed by the system, and providing from the plurality of power supply circuits the necessary amount of power. By using a control signal, such as a control voltage or a digital input, to enable and disable a plurality of power supply circuits, the power supply controller is able to switch between said power supply circuits, substantially as claimed.

9. Claims 4-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,651,178 to Voegeli et al., in view of U.S. Patent US 5,796,182 to Martin

10. As to claims 4-5 and 10, Voegeli discloses all of the limitations of the claims, but does not teach a holding circuit for maintaining a power output for a predetermined time during the switching of power supplies.

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Martin teaches a holding circuit for holding the power output for a predetermined time during the switching of power supply circuits [Abstract]. Martin teaches a circuit for maintaining the supply of DC power in the event that the power supply is disabled.

At the time that the invention was made, it would have been obvious to a person of ordinary skill in the art to employ the holding circuit as taught by Martin. One of ordinary skill in the art would have been motivated to do so that interruption of power to the power supply circuits would not result in the immediate loss of the power supplied to the system.

It would have been obvious to one of ordinary skill in the art to combine the teachings of the cited references because they are both directed to the problem of providing power to a system by means of voltage converting power supply circuits. Moreover, the holding circuit means taught by Martin would improve the robustness of Voegeli because it would prevent interruption of power when the power supplies are being switched.

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (703) 305-4612. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703) 305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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